



DEPARTMENT OF DEFENSE

Influenza Surveillance Summary



10 May 2012

Summary

- This is the final issue of the DoD Influenza Surveillance Summary for the 2011-2012 season.
- The overall influenza activity remains low to moderate with predominantly influenza A/H3 & B in overseas DoD laboratory surveillance networks, except in Southeast Asia & Central Africa where no influenza activity is detected.
- The influenza activity level within the MHS continues to decrease from previous weeks.

Electronic Surveillance

Defense Medical Surveillance System (DMSS), medical encounter database and reportable events

- Influenza-Like Illness (ILI) and Pneumonia and Influenza (P&I) incidence rates decreased from last week for all regions (*Figure 1*).
- The percent of all outpatient visits due to ILI remained stable except for an increase among US beneficiaries and a decrease among PACOM Servicemembers (SMs). SMs percents were below baseline and at or below previous seasons. Beneficiary percents were above baseline and previous seasons for the US, and at baseline and previous seasons for EUCOM and PACOM (*Figure 2*).
- The percent of all outpatient visits due to P&I remained stable for all groups except for an increase among US beneficiaries. Percents were at or below baseline and previous seasons for all regions (*Figure 3*).
- There are 280 Reportable Medical Event (RME) influenza cases among SMs since Week 40 (64.6% were vaccinated against influenza); an additional 817 cases were reported among other beneficiaries (*Figure 4*).

Navy and Marine Corps Public Health Center (Source: HL-7 data)

[Contact](#)

- 21 influenza A and 14 influenza B positives were reported during Week 18 (includes molecular and rapid tests); the overall influenza positivity rate continues to decrease since Week 10.
- The number and proportion of antiviral prescriptions for DoD beneficiaries in the inpatient setting decreased from last week compared to this week (13.5% and 9.4%, respectively).

Laboratory Surveillance

United States Air Force School of Aerospace Medicine (Source: Global, lab-based military sentinel surveillance)

[Contact](#)

- Three influenza A/H3 and one B were identified among tested specimens in Week 18.
- An enhanced surveillance program for the novel strain A(H3N2)v has not yet detected any positive samples to date.

Naval Health Research Center (Source: Lab-based recruits, shipboard and border surveillance)

[Contact](#)

- No positive influenza was identified among recruits last week; influenza positivity decreased since Week 15 in DoD dependents.
- Type 14 adenovirus is present at MCRD Parris Island.

Global Surveillance Network

DoD Laboratories/Partners:

- *Southeast Asia*: No influenza activity (AFRIMS, NAMRU-2).
- *Europe*: Low influenza activity with co-circulation of influenza A(unsubtyped) and B (USEUCOM).
- *North Africa*: Moderate influenza activity with co-circulation of influenza A/H3 and B (NAMRU-3).
- *East Africa*: Moderate influenza activity with co-circulation of influenza A/H3 and B (USAMRU-K).
- *Central Africa*: No influenza activity (USAMRU-K).
- *South America*: Moderate influenza activity with co-circulation of influenza A/H3 and B (NAMRU-6).

Immunization Coverage*

(Active Component)	DoD-All	ARMY	MARINES	NAVY	COAST GUARD	AIR FORCE
Seasonal Influenza Vaccine	97%	97%	95%	95%	98%	98%

Sources: DoD ALL-MILVAX, ARMY-MEDPROS, MARINES-MRRS, NAVY-MRRS, COAST GUARD-MRRS, AIRFORCE-AFCITA

*As of 29 March 2012

For inquiries or comments please contact AFHSC.Web@amedd.army.mil

Figure 1. Incidence Rate of P&I and ILI among Active Duty Service Members

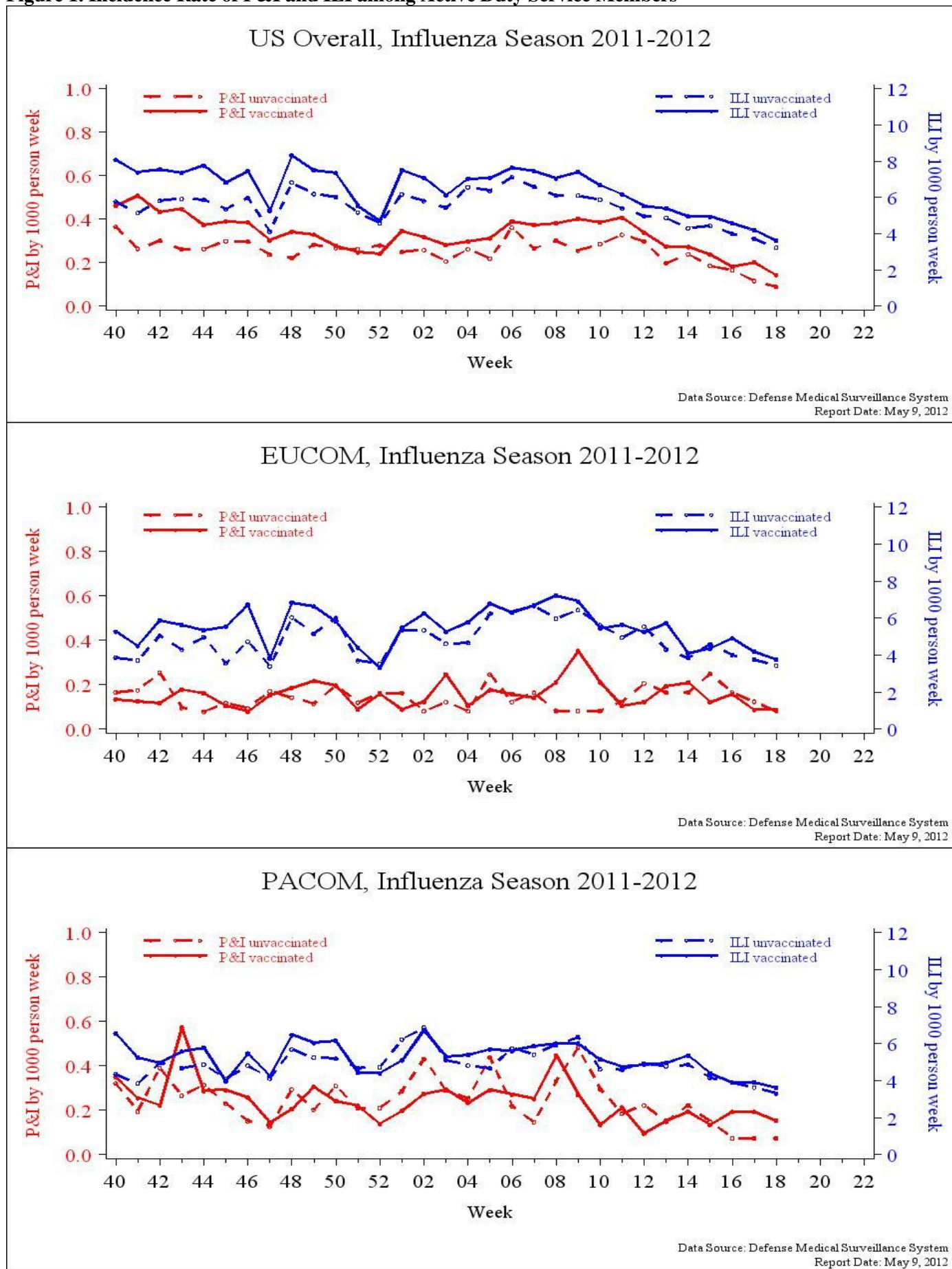
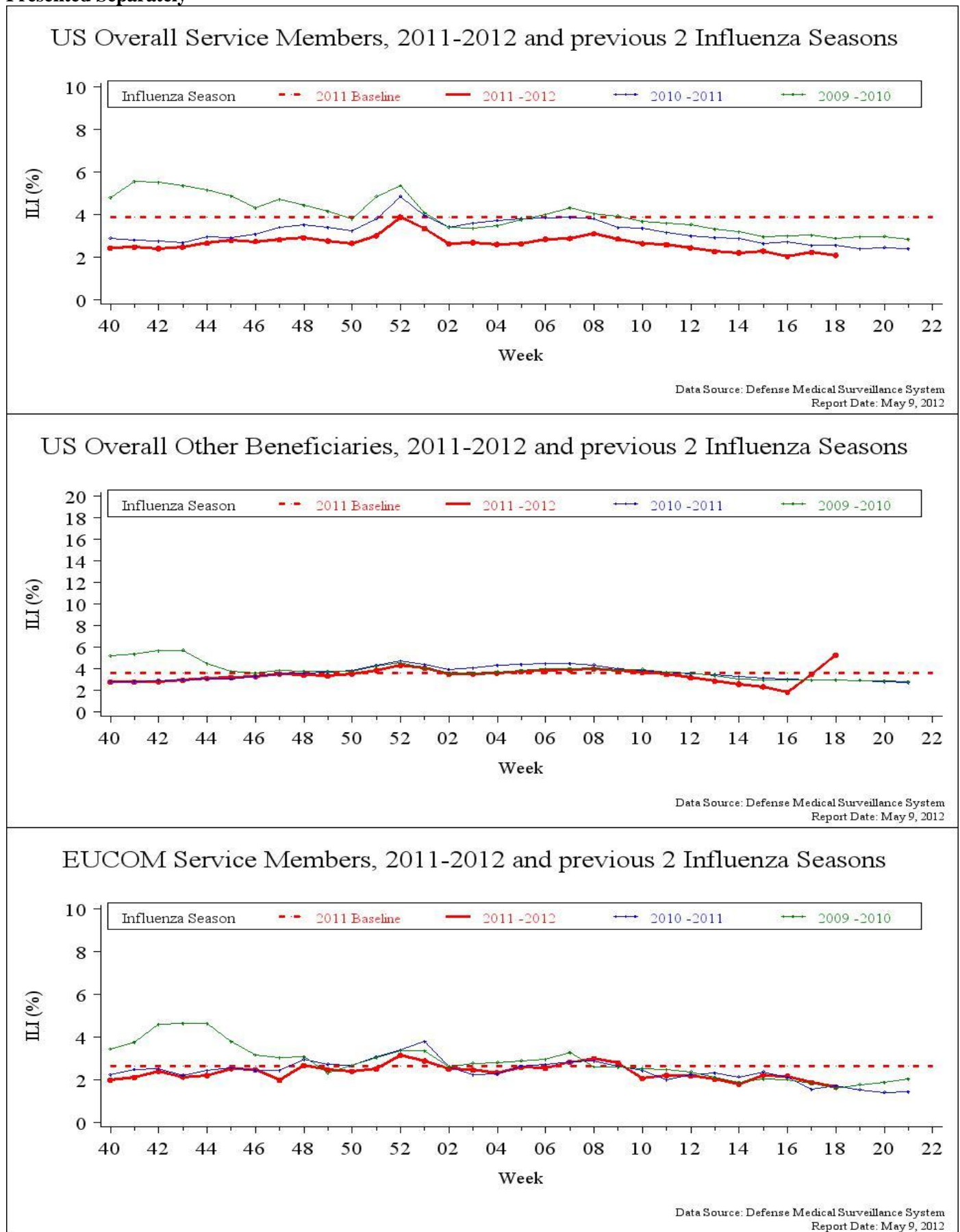
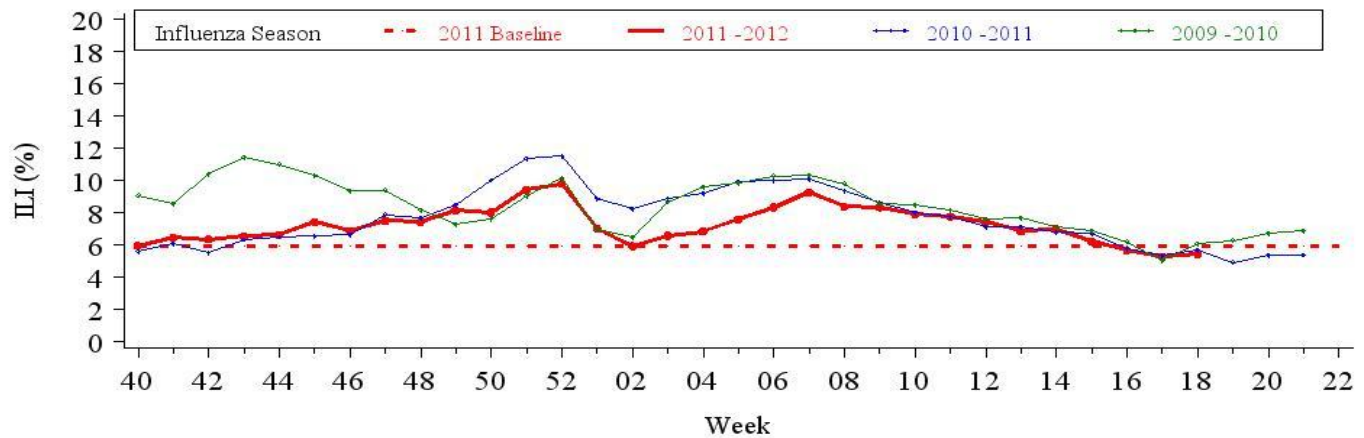


Figure 2. Percent of All Outpatient Visits with an ILI Diagnosis: Service Members and Other Beneficiaries Presented Separately

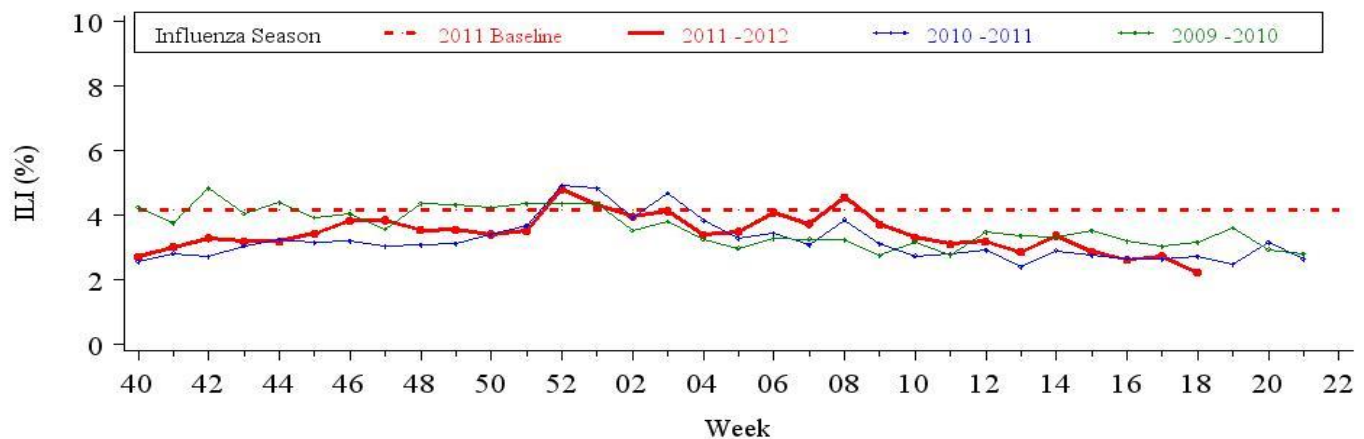


EUCOM Other Beneficiaries, 2011-2012 and previous 2 Influenza Seasons



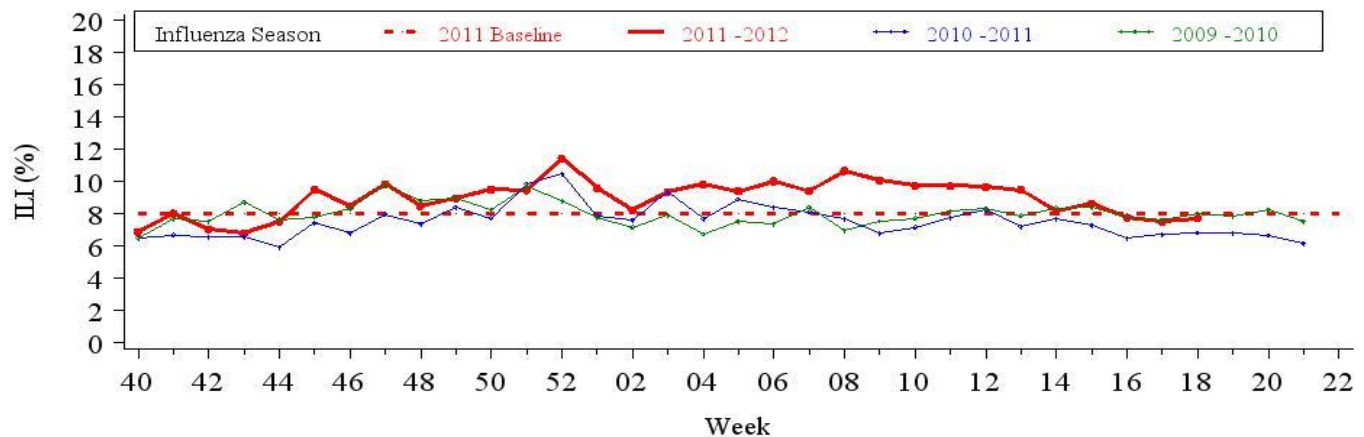
Data Source: Defense Medical Surveillance System
Report Date: May 9, 2012

PACOM Service Members, 2011-2012 and previous 2 Influenza Seasons



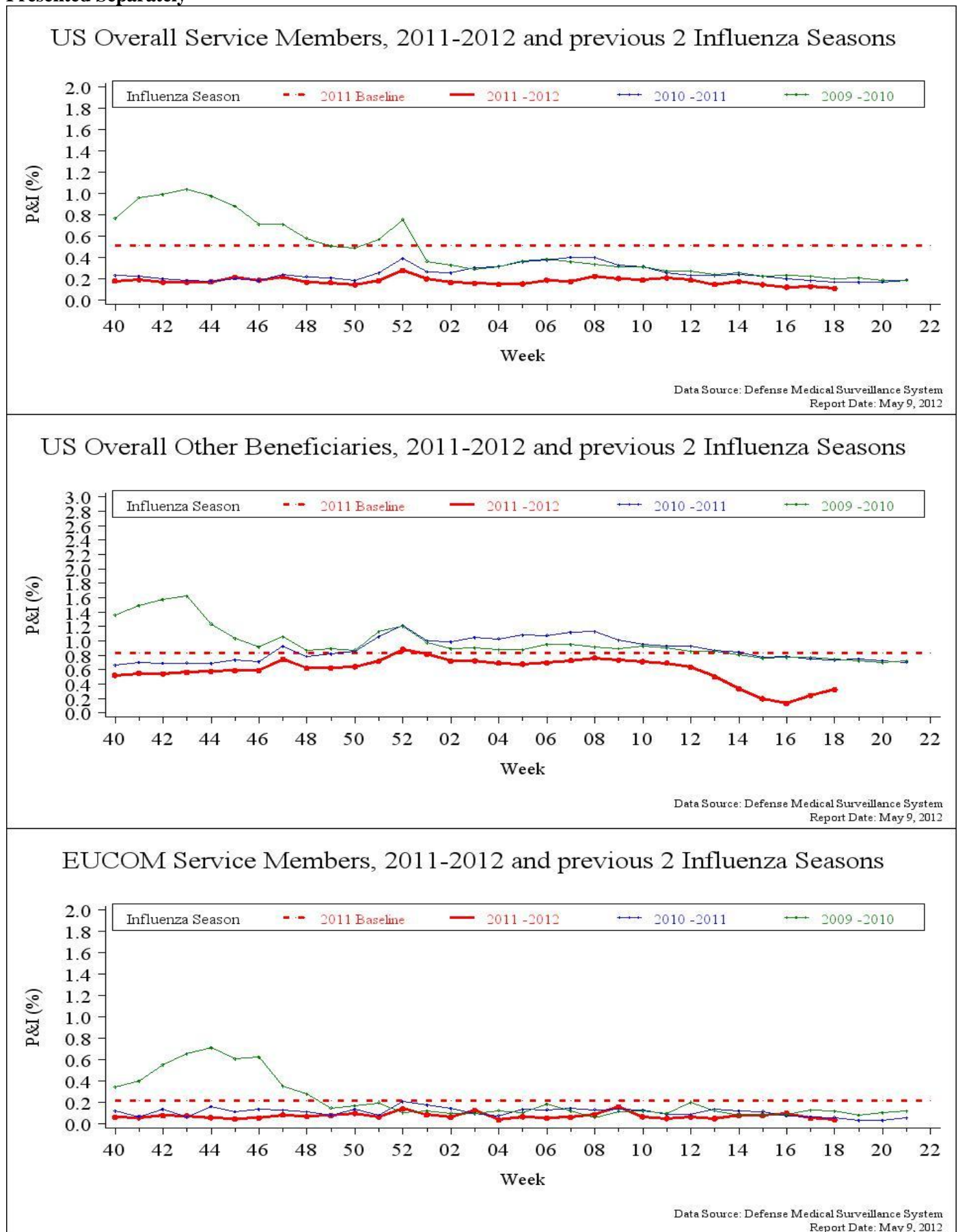
Data Source: Defense Medical Surveillance System
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PACOM Other Beneficiaries, 2011-2012 and previous 2 Influenza Seasons

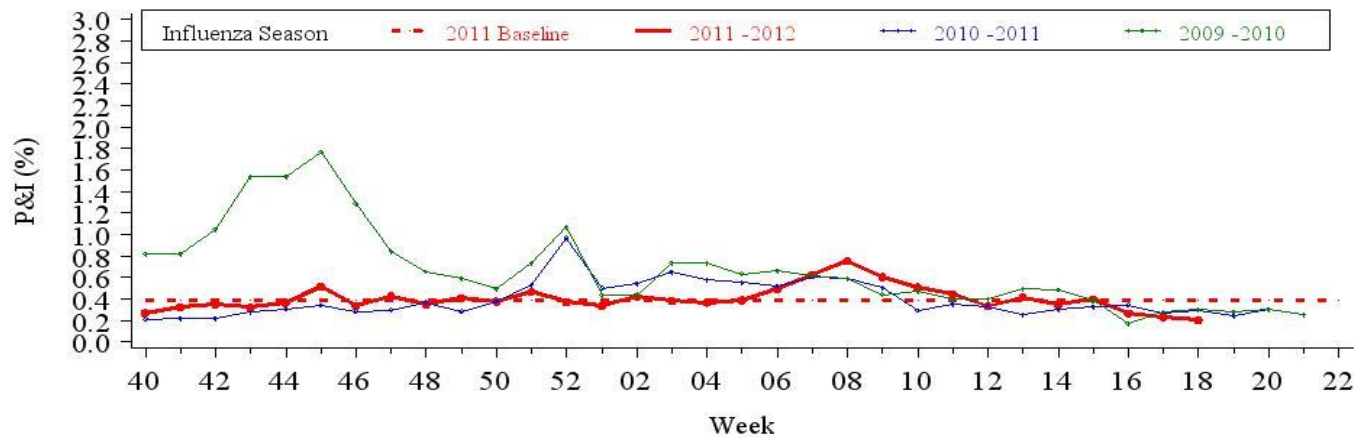


Data Source: Defense Medical Surveillance System
Report Date: May 9, 2012

Figure 3. Percent of All Outpatient Visits with a P&I Diagnosis: Service Members and Other Beneficiaries Presented Separately

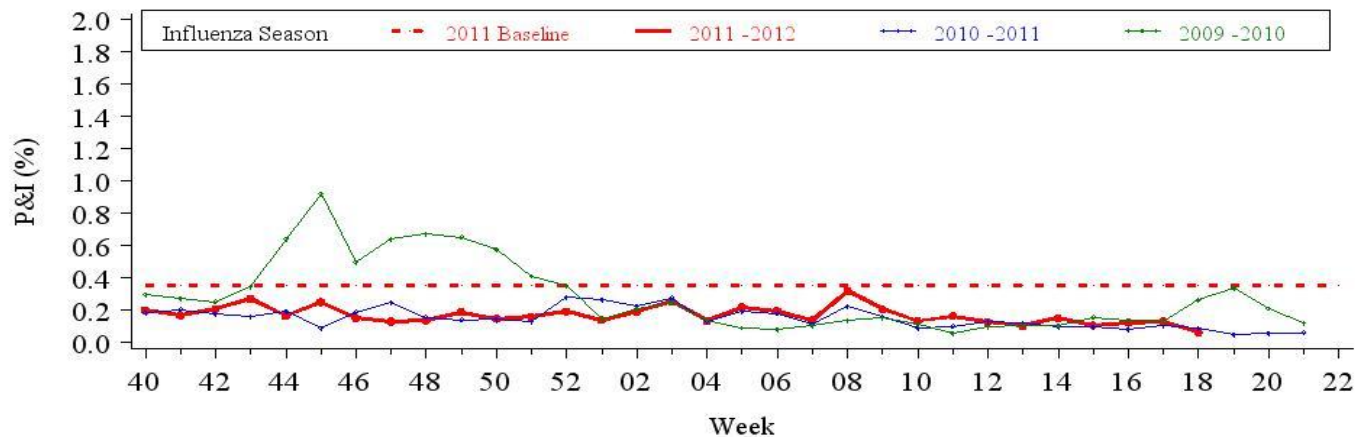


EUCOM Other Beneficiaries, 2011-2012 and previous 2 Influenza Seasons



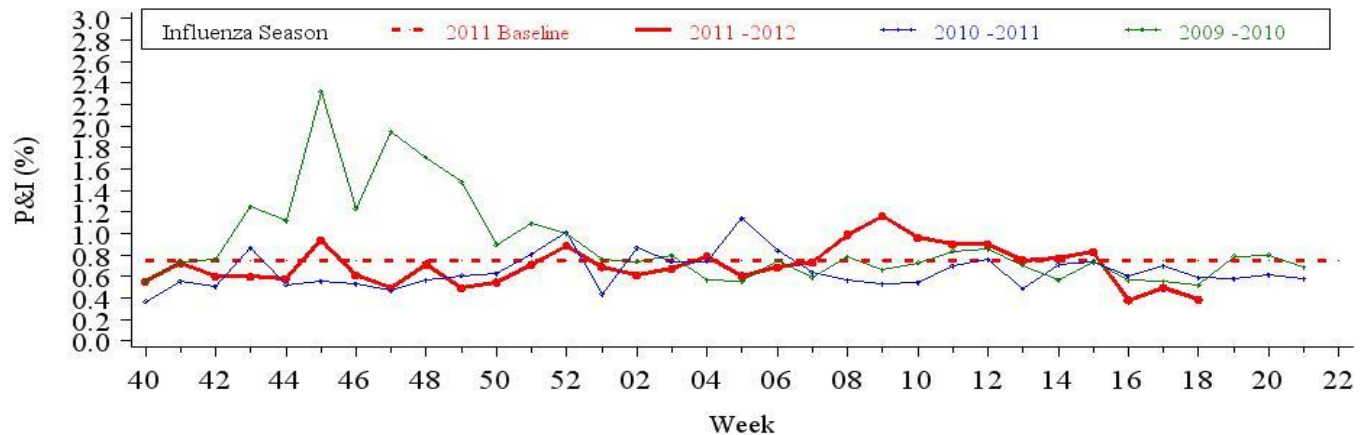
Data Source: Defense Medical Surveillance System
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PACOM Service Members, 2011-2012 and previous 2 Influenza Seasons



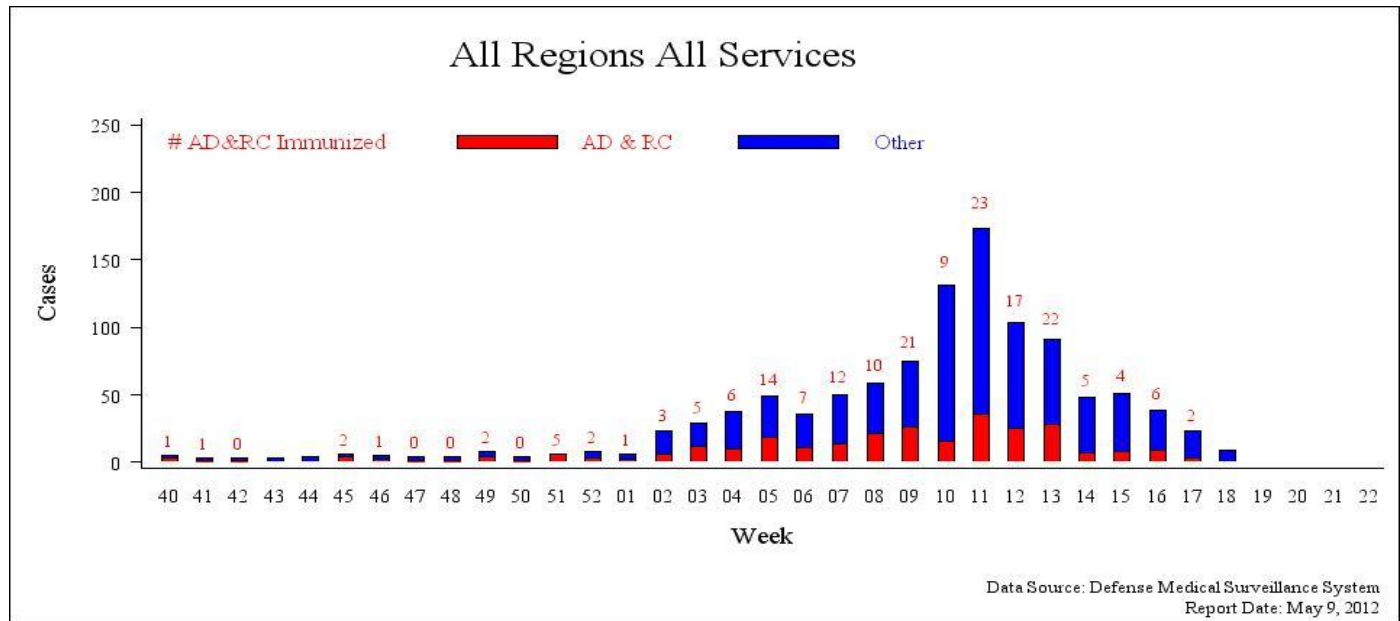
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PACOM Other Beneficiaries, 2011-2012 and previous 2 Influenza Seasons



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Figure 4. RME for Influenza: Confirmed cases (Active Duty (AD) & Reserve Component (RC) vs. Beneficiaries) for All Regions and Services



Description:

The first 3 figures present the weekly data on ILI and P&I events. These figures give an overview of the influenza season by incidence and all outpatient visits. This data can give a broad view of the pattern and severity of the season and allow the reader to compare seasonal patterns with previous years and between the U.S. and international regions. Figure 4 of this report provides data on influenza reportable medical events.

Incidence of Influenza (Figure 1):

Each week the incidence rates of ILI and P&I are calculated for active duty service members. The numerator comprises the sum of new events occurring during the week of interest. The denominator comprises the total number of persons at risk for that week. Rates are stratified by seasonal influenza vaccination status at the start of the week. Service members vaccinated against influenza at least 14 days prior to the start of the week are included in the vaccinated group. (Figure 1)

Percentage of Outpatient Visits Associated with Influenza (Figures 2 and 3):

The percentage of all outpatient visits that have an ILI (Figure 2) or P&I (Figure 3) diagnosis is calculated each week for (1) all service members, regardless of component and (2) all other DoD beneficiaries. Current proportions are graphed against the baseline** and data for the two prior influenza seasons for comparison.

Reportable Medical Events:

Each week the total number of influenza RME cases is determined for service members (including Active, Reserve, and National Guard components). In addition, the number of cases among all other military health system beneficiaries is calculated. For service members, the total number vaccinated at least 14 days prior to the RME date is also reported. Counts for all regions and services are presented in Figure 4.

(All data are preliminary and subject to change as updated data is received)

Background:

AFHSC maintains the Defense Medical Surveillance System (DMSS) which is a database containing up-to-date and historical data on medical encounters, vaccinations, and personnel and demographic data about service members from all military services. Using ICD-9 codes from hospitalization and outpatient encounters, and influenza vaccination data contained within the DMSS, AFHSC produces weekly summaries of respiratory illness activity among military health system beneficiaries by geographical regions. Two primary outcomes are used for this surveillance: Influenza-like Illness (ILI) and Pneumonia and Influenza (P&I). ILI is defined as a health care encounter that resulted in a diagnostic (ICD-9) code of 79.99, 382.9, 460, 461.9, 465.8, 465.9, 466.0, 486, 487.0, 487.1, 487.8, 488, 490, 780.6, or 786.2. P&I is defined as an ICD-9 code of 480-488.

AFHSC also receives standardized case reports of RME from all services. The military's RME system requires reporting of additional infections not included by the Centers for Disease Control and Prevention's Nationally Notifiable Diseases Surveillance System, including influenza. Respiratory illnesses that meet a clinical case definition (sudden onset of fever $>102.2^{\circ}\text{F}$, respiratory systems, myalgia and headache) and are laboratory confirmed as influenza are reportable.

**For figures 2 and 3, the overall and region baseline is the percentage of outpatient visits for ILI or P&I during non-influenza weeks (weeks 22-39) over the past 3 years plus two standard deviations.